

ABSTRACT OF THE DISCLOSURE

A plasma processing method includes introducing a gas into a vacuum chamber through a hole of a dielectric tube attached to a metal body fixed to the vacuum chamber while exhausting from the vacuum chamber to keep the vacuum chamber within a specified pressure, and applying high-frequency power with a frequency ranging from 100kHz to 3GHz to a plasma source provided so as to face a substrate mounted on a substrate electrode in the vacuum chamber to generate plasmas in the vacuum chamber to perform plasma processing of the substrate.